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INFLUENCE OF SOCIAL IMPACT ON CONSUMER BEHAVIOR IN AGRICULTURE: EVIDENCE FROM CHINA

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ABSTRACT

The extraordinary technological advances and GDP growth of global economy during last decades are a trademark of a contemporary history. In light of challenges that the global development entails, the Corporate Social Responsibility concept becomes gradually more and more important. The aim of the thesis is to examine impact of CSR activity on several aspects of the consumer behavior. The research is focused on application of CSR in agriculture, which takes form of CSA farming model. The research takes place in China.

Keywords: Community Supported Agriculture, Corporate Social Responsibility, Sustainable Consumer Behavior, Chinese consumer behavior, social impact.

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MOTIVATION

The aim of the following study is to examine practicality of the Community Supported Agriculture solution from the standpoint of development of the Chinese economy. The focus is placed particularly on the analysis of the Chinese consumer behavior.

Chinese economic miracle is an embodiment of the problems that the de-growth thinkers address. The Chinese economic growth rate has been impressive both in terms of its height and in terms of the length of a time for which it remains at such a high level. Chinese "new urbanization" policy, which fosters the growth of country's poorer mainland cities, succeeded in that Chinese cities continue to expand in terms of space, population and economic activity.

That development however, driven by intensive industrialization and increasing production, came at considerable costs on welfare of society: enhanced social inequalities and declining quality of environment. Due to heavily mechanized and chemicalized agriculture model and lack of transparency regarding origins of the food, the food safety and availability became one of the critical public concerns (Ho and Krul 2017). Intensive urbanization accompanied by investments in heavy industry, caused significant degradation especially in water and land resources.

Observation of similar phenomena in the past global history, led to the appearance of ideas postulating creation of a socio-economic model based on a reduction of excessive consumption. (Latouche 2010), who is one of the main advocates of the de-growth concept, claims that returning to local scale would result a real increase in quality of life and well-being and that it would resolve majority of the nowadays problems.

Community Supported Agriculture (CSA) fits perfectly into the idea of the richest economies advisable return to a local economy and the consumption of local products.

CSA is an alternative model of farming, that was created in 1980s in United Stated (McFadden 2005) by two European farmers: (Jan Vander Tuin and Trauger Groh). Since then it was spread

in various other countries. The model has received a lot of scholarly attention due to its positive impact on local communities, environmental-friendly technology and a structure that allows for fair split of risk between an agricultural producer and a consumer.

Under that model, the consumer subscribes for a weekly/biweekly food delivery from a CSA farm, which at the same time commits to ecological and ethical cultivation of vegetables and breeding cattle. Farmers know exactly the needs of their customers (quantities and type of plants, they should cultivate), because the subscription is a contract for an agreed fixed time and includes regular payments in advance. Consequently, it allows the farm to eliminate the food-waste problem and costs of intermediaries (the products are sold directly to the consumer), which helps them to maintain relatively fair price, even given the small scale and higher production (Lizio and Lass 2005)**.** From the customer point of view, the main advantages are the transparency, the quality of food, convenience of the deliveries, the environmental-friendly impact and the possible relationship with the producer (the farms usually organize some events). Questions, such as: how well CSA model adopts in China (that for a long time was main exporter of goods), whether products from such farms find the buyers on the internal market and how do the Chinese consumer behavior look like, form a ground for past and future researches on this topic. In parallel with the intensive urbanization and Chinese development, there appeared substantial middle class, consisting of people who already gathered certain wealth level at which they are able and willing to choose better quality products. Chinese middle class continues to strengthen its position and becomes western-like in terms of values (Dias Simões 2016). The environmental concerns matter for Chinese consumers. The growth of this particular society group contributes to the fact, that China is switching its focus from exports to satisfying the internal demand.

In 2008 the first farm CSA farm in China begun its activity. Since then, the farming model started to spread gradually up to 122 CSA farms in 2017, and around 500 that partially comply

with the CSA standards (Ho and Krul 2017). Surprisingly or not, the majority of organizers and consumers of CSA are the middle-class people.

The thesis is based on an example of one of such farms, settled in bordering with Inner Mongolia Shanxi. The province appears among 10 provinces with the lowest GDP per capita in China (National Data 2018). Known for its leading position in coal mining, consequently it is a leader in pollution. The farm was funded and managed by Taiwanese ex-IT-consultant and additionally to implementing CSA assumptions, it also employed mentally disabled people. The idea was to expand positive influence on society, by helping mentally disabled community to successfully integrate with society.

The author of thesis spent 2 months in summer 2018 working on that farm, in a small village in Xiangning County.

THEORETICAL BACKGROUND

Corporate Social Responsibility

"Between the great good and the terrible harm businesses produce, lies concern about the proper role of corporations in society, especially in times of globalization and technological innovation" (Chandler and Werther 2011)

The idea of Corporate Social Responsibility (CSR) provides a remarkable opportunity of discussing the role of business in society. Concept of CSR relies on an assumption, that enterprises already on a stage of building their strategies, should take into account social interests and environmental protection as well as relations with various stakeholder groups. According to this approach, responsibility does not only mean that business organizations (firms) meet all formal and legal requirements, but it also entails the need for increased investment in human resources, environmental protection and relations with stakeholders who can have a real impact on the business performance of these businesses. Contrary to the

traditional approach of pursuing maximum profits by minimization of costs, expenditure taken on the above-mentioned matters, is treated positively: as an investment and source of innovation. On the society-level the proliferation of CSR values among companies, may be an antidote to part of the issues caused by excessive industrialization and consumption, that the governments result to be inefficient coping with. Companies play considerable role in shaping the market and consumer attitudes. Through expanding their CSR activity side, quoting (Crouch 2006): firms are capable of creating a taste for sustainability and environment protection. On the corporate level, attaching business to ethics and responsibility is an eye-catching strategy, taking into account the changes in consumption patterns and differences in consumer behavior between generations. Debbie Haski-Leventhal (2018) list three main sources of motivation for a firm to engage in CSR: the moral motivation, the relational motivation and the economic motivation. The first motivation refers to the internal need of reciprocity towards society, for making the existence of business and industry possible. The second motive includes reasons such as minimization of possible bureaucratic or social restrictions and adequate relations with the stakeholders. The third, economic motive is related to possible gains from the employee engagement, improving a brand's reputation or gain market shares from less environmentally friendly competitors (Heal 2005). This thesis focuses on this third motivation and in particular it studies whether adding a social impact to farming business model will result in an increased interest concerning the farms activity. The reasonableness of the economic motive is supported by several previous studies. The positive relationship between investing in corporate social responsibility and the company's financial results was reasserted by Russo and Fouts (1997) and Orlitzky, Schmidt, and Rynes (2003). It has been shown, that the consumer's price sensitivity for given products tends to decrease when the producer's brand reputation is associated with social responsibility (Green and Peloza 2011). The opposite occurs with the brand loyalty, that increases, when a firm is known for its CSR behavior (Rubio, Ruiz and

Marin 2009). According to Du, Bhattacharya, & Sen (2007), the consumers are more prone to support firms and defend them against criticism if they that engage socially. However, it is not the engagement in the charity itself, that influences positively the perception of company's product quality. Chernev and Blair (2015) point out the "benevolent halo" of corporate social activity - the belief in benevolence of motive of social engagement is crucial for obtaining the positive response from the purchaser.

Sustainable Consumer Behavior

In 1996 Roberts defined socially responsible consumer as: "the one who purchases products and services perceived to have a positive (or less negative) influence on the environment or who patronizes businesses that attempt to effect related positive social change" (Roberts 1996). The definition is consistent with the definition of sustainable consumption outlined at the Oslo Symposium on Sustainable Consumption in 1994 and with the 3 pillars of sustainable consumption (pro-environmental, pro-social and frugal), pointed out by Pepper, Jackson and Uzzell (2009). All of the concepts underline the two dimensions of sustainability in consumer behavior (that will be important in our analysis afterwards): the environmental and social concern.

According to the Theory of Reasoned Action (TRA) the consumer's behavior can be presented as a positive function of one's intention to perform this behavior. The intention is shaped by person's own belief that performing the behavior would lead to a specific result and by the evaluation of that result - whether it will be beneficial or not. Therefore, to predict and understand the consumer decisions, it is useful to focus rather on analysis of the attitudes towards the action of purchasing or using a product. The Theory of Planned Behavior (TPB) is based on TRA, but it enriches the previous model by adding to the group of factors that influence behavioral intentions the subjective norms and perceived behavioral control. It means that, apart from the personal attitude, it will be also important to consider the consumer's

confidence that he/she is actually able to perform certain action or the degree to which the consumer can be influenced by the will of his/her close ones to engage in certain action. White and Habib (2018) underline role of social factors, habits, personal norms, feelings and cognition and tangibility of outcome in explaining (and inspiring) consumer sustainable behavior. Social factors include aspects such as: social norms, social desirability and social group membership. Importance of habits, is supported by study of Thøgersen and Crompton (2009), indicating that "engaging in a sustainable consumer behavior at one time can lead to other positive sustainable behaviors". As major barrier to sustainable consumer behavior Gifford (2011) mentions the lack of knowledge about socially or ecologically friendly solutions and ignorance about negative consequences of certain non-sustainable behaviors. Another barrier is the appearing sometimes perception of worse quality of eco-products (Luchs and Kumar (2017), Gorlin, Dhar and Newman (2014)) and additional effort, such as higher financial cost or inconvenience resulting from coping with lower accessibility of the products.

In view of the Chinese context of this thesis, it is worth to mention findings of (Thøgersen, Zhou and Yat-Sen (2012)), who in 2012 employed a TRA model in China, in order to examine which factors influence consumer behavior in respect to early adoption of the organic food. The analysis shown, that Chinese consumer behavior is mostly driven by the beliefs that organic products are healthy, tasty, and environmentally friendly (so called "universalism values"). Since there was no strongly influential role model for encouraging organic food purchase, social norm resulted to have a minor impact on the early organic adoption. Additionally, the authors assume that the adopters tend to be rather highly involved in decision making. The "high-effort path" of the organic adoption follows from the common mistrust towards producers and fear of being deceived when purchasing an organic food.

RESEARCH QUESTIONS and hypotheses

The presented research bases on example of a Chinese CSA farm, that apart from completing all of the standards coming from definition of CSA model, had a special feature that made it exceptional among other CSA farm. The "Hope" farm trained and employed mentally disabled young adults, to work on a plantation on regular basis. The farm was also providing them with assistance of professional teachers and sponsoring additional non-farming related activities. The idea of the farm manager was to combine "doing green and doing good": producing healthy products in one of the most polluted areas in China, together with giving job to the people who are normally excluded from the working part of the society.

The construction of the farm's business model, is a perfect example of CSR, proving that it is possible to maintain being profitable and being deeply oriented on social impact in agriculture. Given the theory about consumer sustainable behavior the Community Supported Agricultural model seems to be a solution worth spreading on a larger scale. But in practical terms, it is interesting to capture, how strong would be the real demand for this kind of farming and whether the market is ready for it. Inspired by those questions, 2 research questions for this thesis were proposed:

Research question 1): Does presence of a CSA farm in in rural area increase knowledge and willingness to learn about environmental issues among residents of the area?

So far still the most frequent and enthusiast consumers of CSA are the urban middle-class people, which is explained by higher level of environmental awareness. Considering that the CSA model includes interaction and support to the local economy and people, there is a considerable chance of positive effect of the presence of such farm on environmental awareness among rural people. The authors hypotheses are: **H1:** Knowing an organic farm in the neighborhood and engagement in organic farm activities are positively correlated with

willingness to learn more about organic farming and **H2:** Knowing an organic farm in the neighborhood and engagement in organic farm activities are positively correlated with higher level of education about organic farming.

Research question 2): Can adding social impact to the CSA farm activity in a form of hiring mentally disabled people increase willingness to learn about organic farming in the neighborhood?

The question refers to the aspect of CSR and whether the addition of a given a social impact would translate into increased interest in the farms professional activity. The hypothesis **H3** is that: Social impact in a form of hiring mentally disabled people is positively correlated with an individual's willingness to learn more about organic farming.

METHODOLOGY

Research design

The research approach applied to this thesis is a quantitative, hypothetical deductive study. The project is composed of the two parts: the non-experimental, descriptive study and the experimental study. Data for the both parts was collected in a form of closed question, anonymous questionnaire, randomly distributed in amount of 102 paper-copies in rural area of Chinese province Shanxi (50%) and in Xi'An city in China (50%)[1]. The survey structure consisted of 6 main parts: demographic characteristics, knowledge about organic farming, overall environmental attitude, personal habits, reasons for buying organic food, budgeting decisions and an offer to leave a contact, in case a respondent would be eager to learn more about organic farming in his/her region. Sections of overall environmental attitude, personal habits, reasons for buying organic food were collected through using 5-points Likert scale.

[1] Among the people approached, around 20 refused to take part in the interview.

Basing on the data obtained from Likert-scale questions, it was possible to develop set of indexes: Enjoyment of nature, Support for interventionist conservation policies, Support for population growth policies, Personal conservation behavior, Environmental movement activism, Pollution awareness. The indexes were constructed by calculating the average of scores from "positive" and "negative" questions, belonging to a given section. The experimental part of the study was as follows: the respondents were divided randomly into 2 groups. Both groups were firstly asked 3 questions about their decisions regarding purchasing products from an organic farm. The treatment group of the experiment received an extended version of the survey containing: a) a description of an organic farm, that apart from producing healthy food, also provided employment to people with intellectual disabilities, by engaging them with work on plantation b) set of additional 3 questions about their decisions regarding purchasing products from that particular organic farm. In practice, the treatment and control groups consisted of 45 and 57 people respectively. The deviation from the desired equality results from the fact that the author did not manage to use all of the printed and prepared copies, due to time limitations.

The sample: descriptive statistics

The research sample consists of a group of 102 people, interviewed in Linfen jurisdiction of Shanxi province, and in the capital of Shaanxi province. The participants were picked randomly, among people who lived or stayed in rural area of Xiangning County and in developed city Xi'an. The gender ratio was balanced - 54% of the respondents were women, and 44% were men. The ages of the respondents ranging from 13 until 60 were collected as a continuous variable. Majority of the respondents were in their working age (88% between 20 and 49 years old), however mode (24) and median (28) point out the most populated in age group in the sample consisting of 20-29 y.o. (43%).

Exactly half of the interviewed were born and currently living in rural areas. Nearly 1/3 of the people, were living in different location, than their birth place. Interestingly, most of the migrations were within urban or rural areas. 41% confirmed urban location as a present place of residence and 59% the rural one. In general places of residence of people from my sample fall into 6 categories: deep village (less than 100 habitants), small underdeveloped-towns (around 6 000 habitants), towns (300 000 – 600 000 habitants), cities (1-3 millions), big cities (5-7 mln) and megalopolis (> 10 mln).

The division between rural and urban areas is reflected in the data on employment. Low-skills jobs (56% percent of the sample in total) were more frequently reported among rural-workers (37%). However, the relatively high ratio of high-skilled workers in the rural area is driven by the over-sample of tourist guides in the Xiangning County area. Out of all the people, only 11% was employed in strictly agricultural sector. Considering that in the sample there was no retired person, except 3 students and 1 unemployed person, all of the respondents were working.

Education in China is compulsory for the first 9th years of schooling – it means until elementary school and junior high school. In our sample 98% of the responded completed the required education. Above that, 16% percent finished secondary high school (+3 years) and 31% specialists school (+2 years), which are the two options between which Chinese people can choose if they want to continue education. 31% of respondent reached the bachelor's degree, but only 5% obtained the master's degree, which was the highest level of education seen in the sample. The most frequent last level of education, was anyway specialist and undergraduate (11 and 16 years of education).

The distribution of the income is left-skewed with majority of the respondents oscillating around income of 5000 RMB per month (631 EUR), which is slightly above the average for the Shanxi province 4475 RMB. The most frequent answer was 1700 – 3700 RMB, median 3700 – 5000 RMB. 81% of people were earning less or equal to 10 000 RMB. Respondents who

reported higher income than that, were in vast majority high-skilled workers from the urban areas. The data is right censored on the answer "> 18 000" which crossed 7% of people (entrepreneurs). Both median and mode of expenditure per household lie in bracket of 2 000 - 3 000, which is on similar level to the median and mode of incomes.

Nearly 2/3 of the interviewed were married, the rest being single (38%) or leaving no answer (4%). The average household consisting of 4 family members in the sample is bigger than the average in China (3), even though there most frequent answer was 3 people. Bigger families were not uncommon: 17% of the people reported that they have family of five, and then 5% and 8% of respondents admitted having families consisting of 6 and 7 members. 38 % of respondents were parents to 1 child. The effect of abandoning 1-child policy is visible on our data regarding rural families - a substantial part of parents from all 3 age groups between 20 and 49 decided on a 2nd kid (22%). Even though birth of an additional kid is related with payment of a fine, there happened to be people with 3 kids – 7% of the sample population.

In terms of religion, distribution of beliefs in our sample reflects the pattern of whole population of China. Majority of the people are not religious, 55% declared themselves as non-believing, 9% followed Buddhism, 4% Taoism and then only 3% were Muslim and 2% Christian. 25% of the people marked "Other" without specifying any particular religion, if we merge it together with non-believing option it would give us almost the same result as in the population of China.

In the summary – even though small, the sample has quite even distribution- the gender ratio is almost even, half of the people are villagers and the other half come from a city. There is a wide variety of jobs – from farmers, through tourist guides, teachers, police, until government officials and entrepreneurs. Excluding the part of the people who were from the cities, the levels of the income are rather low, however above the average for Shanxi province.

Applied models

Two econometric models were built. The results obtained from the models will be used to test the hypotheses specified in section *"RESEARCH QUESTIONS and hypotheses"*. The regressions take form of: $Y = \alpha + \beta X + T + u$.

In the **Regression 1)** Y is the dependent variable *LEAVING_EMAIL* and it is binary, taking values 1, if the person shared an e-mail or WeChat number in the last question of the questionnaire and 0 otherwise. The regression's aim is to examine what influences respondent's willingness to hear and learn more about an organic farming, measured by a "*LEAVING_EMAIL*" variable. X is a vector of independent variables: *Organic farm knowledge, Knowing an organic farm* and *Engagement in organic farm activities* and controls (chosen among demographic factors and "Overall environmental attitude" section). The α stands for the intercept and u is a vector of residuals. The treatment dummy variable *Test_question* takes value of 1 if a respondent was presented with a description of a model of an organic farm that operates with an additional social impact (in form of hiring mentally disabled people). The purpose of including the T variable is to examine, whether familiarizing an individual with the possibility of combining environmental impact with social impact in agriculture will affect his/her willingness to learn more about organic farming. The regression refers to the experimental part of the research.

The **Regression 2)** was designed to test the relationship between level of education about organic farming (the dependent variable: *Org_farm_knowledge*), two independent variables: *Knowing an organic farm* and *Engagement in organic farm activities* and set of 7 control variables. The treatment variable T is absent in R2) equation. The regressions differ slightly in choice of control variables, as the R2) includes *Organic products purchasing habits*, which are not as relevant for R1) regression.

Out of the set of demographic controls, only the 4 variables: *Residence categorical, Job high skill, Age* and *Gender* were used in later regressions. The *Gender* took value of 1, if a respondent was a man and 0 otherwise, *Residence Categorical* took values from 1 to 6, indicating level of urbanization of respondent's place of residence[2]. The *Job high skill* took value of 1, if an individual's job required high level of education, advanced skills or high level of entrepreneurship. The two regressions were estimated both as logit and OLS models. The logit model assumptions are fulfilled. The OLS estimation was used as an auxiliary reference, despite the insufficient sample size and violation of the assumption of the dependent variable's continuity. Accordingly, to the further results of heteroskedasticity tests, it was decided to run the models without using robust standard errors. The final selection of controls for all three regressions was decided after Principal Component Analysis.

ANALYSIS

Principal Component Analysis

To ensure a reasonable number and selection of variables used for models, two Principal Component Analyses were conducted. The first PCA included all of the index variables from "Overall environmental attitude" and "Personal habits" sections of the questionnaire, included mainly in R1) and R2) regressions. The second PCA included 11 variables from the questionnaire's sections of "Reasons for buying organic food" and "Budgeting decisions" (see the Appendix for the names and details) used in R3) regression. To ensure good factor analysis, it is recommended that several correlations should be above 0,3 (Pallant 2005), but none should exceed 0,9 (Field 2005). The attached in the Appendix A correlation matrices, proves that the data meets these criteria. Values obtained from the Keiser-Meyer-Olkin test for sampling adequacy were mediocre in the 2 cases, however acceptable for the analysis. The Bartlett's test

[2] 1 - deep village (less than 100 habitants), 2 - small underdeveloped-town (around 6 000 habitants), 3 - town (300 000 – 600 000 habitants), 4 - city (1-3 millions), 5 - big city (5-7 mln), 6 - megalopolis (> 10 mln)

for sphericity yielded highly significant results ($p < 0{,}001$) in both cases, showing that the correlations between variables are sufficiently large for further PCA analysis. As a result of the analysis there were extracted 2 and 4 components with eigenvalues above 1 for first and second model, respectively. The two components from PCA 1 were saved as variables: a) *Personal habits,* built by *Personal conservation behavior, Environmental movement activism and Pollution awareness* and b) *Overall environmental attitude*, built by *Enjoyment of nature, Support for interventionist conservation policies, Support for population growth policies*. PCA 2 accounted for creation of variables: *Organic products purchasing habits* and *Perception of organic food attractiveness*.

Data screening

Before proceeding with interpretation of the regressions results, the data was screened for seven important issues, to verify if it is useable, reliable, and valid for testing causal theory.

Firstly, there were computed the Centered Leveraged Values, which are commonly used for **outliers** detection. Considering the rule recommended by Hoaglin and Welsch (1978) (the lowest of the estimates recommended to compare), a method which relies on comparing leveraged values with an average leverage value multiplied by 2, there were 6 and 5 outliers found respectively in regressions R1) and R2). In order to check for **heteroskedasticity**, the Breusch-Pagan and White's tests were conducted. The obtained p-values for regressions R1 and R2 equaled to respectively 0.4767 and 0.4263 failing to reject the null hypotheses of constant variance and homoskedasticity. To detect whether there is a **multicollinearity** problem in the OLS regressions, the variance inflation factor (VIF) was calculated. The factor gives the information about a percentage of variance that is inflated for each coefficient, due to excessive correlation between predictors. Following the rule of a thumb for VIF interpretation, the VIF values should not exceed 10, and ideally the average VIF should not be higher than 2. In case of R1) and R2), the highest reported VIF was 1,85, while majority of values oscillated around

1,20, which is a satisfactory result. Given the presence of the experiment in the study, there were conducted Levene's and One-Way ANOVA tests, to confirm whether the **sample** is **balanced.** The p-values obtained in both tests, where higher than $\alpha = 0{,}05$, meaning that the differences between the means in the treatment and control groups are not statistically significant at the 5 percent level.

The 3 proposed auxiliary OLS regressions will suffer limitations resulting from the fact that the dependent variables are binary. In this case, R^2 may not be reliable since the regression line will not be a well-fitted. Also, the error term will have a non-normal distribution. The assumption about linearity and the normal distribution of the residuals is not binding for logistic regression. The Hosmer and Lemeshow test for goodness of fit indicated that the model is correctly specified (all of p-values are > 0.05).

Another drawback, is that 4% of the total number of records in the dataset were missing. Although the ratio of missing data is relatively small, the deletion of problematic cases would result in dropping large amount of observations in the models, due to relatively even distribution of missing data in the sample characteristics section (most likely MAR type of data). The loss of the data is in the indexes and budgeting decisions parts was related to poorer quality of data collection (random aspect) among rural people, who were more prone to skip questions (not random aspect). The method chosen for imputation was a customized mean substitution. Each missing value was individually analyzed and substituted with an average of the answers of individuals with similar demographic characteristics: gender, age range, education and place of residence. Average of missing observations per each imputed variable was 4,6. The described above robust analysis concerns after missing values imputation – the robust analysis of raw data is attached in Appendix B.

Linear and Logistic Regression – Results

LEAVING EMAIL (R1)

Table 1: Regression 1, Leaving e-mail

Dependent variable: **LEAVING E-MAIL**	OLS			LOGIT					
Variables	Coefficients / Marginal effects	p-values	SE	Coefficients	p-values	SE	Marginal effect / at means	Average marginal effect	Odds ratio
(Constant)	-0,27	0,52	0,42	-4,12					0,02
Gender	0,19	0,08	0,11	0,92	0,06	0,49	0,23	0,19	2,51
Age	0,00	0,83	0,01	0,00	0,72	0,02	0,00	0,00	1,00
Residence_Cath	-0,02	0,59	0,04	-0,08	0,30	0,17	-0,02	-0,02	0,92
Job_high_skill	0,10	0,33	0,10	0,44	0,28	0,45	0,11	0,09	1,55
Personal_habits	0,03	0,62	0,05	0,15	0,37	0,23	0,04	0,03	1,16
Overall_environmental_attitude	-0,03	0,58	0,05	-0,11	0,65	0,23	-0,03	-0,02	0,89
Organic-nonorganic-difference	0,21	0,08	0,10	1,13	0,76	0,46	0,28	0,23	3,08
Org_farm_knowledge	0,01	0,94	0,12	0,00	0,42	0,65	0,00	0,00	1,00
Knowing_org_farms	-0,10	0,49	0,14	-0,48	0,32	1,07	-0,12	-0,10	0,62
Engagement_org_farm_act	0,27	0,24	0,23	1,40	0,00	0,46	0,35	0,29	4,07
Test_question	0,28	0,01	0,10	1,32	0,52	0,95	0,33	0,27	3,73

The R1) regression contained 10 variables: 3 independent variables (*Organic farm knowledge, Knowing an organic farm* and *Engagement in organic farm activities*) 7 controls (*Gender, Age, Residence Categorical, Job-high skill, Personal habits, Overall environmental attitude, Organic-nonorganic-difference*) and the *Test_question*. The OLS regression R1) shows positive correlation between *Gender, Engagement in organic farming activities* and preference in taste and quality for organic food (*Organic-nonorganic-difference*). Positively correlated are as well *Personal habits* and *High-skilled job,* even though, the coefficients are smaller in those cases. There is no correlation between *Age* and *Organic farming knowledge* and the dependent variable. *Residence, Overall environmental attitude* and *Knowing an organic farm in the neighborhood* present a very weak negative relationship with *Leaving email*.

The coefficients obtained in the logistic regression have the same direction of relationships as in the OLS models. The marginal effects at mean showed that: men are 23% more likely to leave an e-mail comparing to women, for each additional level of urbanization individuals are 10% more likely to leave an e-mail. Being engaged in organic farming activities is increases the probability of leaving an e-mail by 35% comparing to the lack of engagement. Organic farming knowledge is uncorrelated with leaving an e-mail and knowing an organic farm in the

neighborhood are associated with decrease of probability of leaving an e-mail, correspondingly 12% (comparing to people who do not know any organic farm in the neighborhood). The average marginal effects and the marginal effects at mean are almost identical in this case. The highest odds ratios in the regression were assigned to *Engagement in organic farming activities*, Organic-nonorganic-difference and Gender.

The correlations became stronger in the OLS model particularly in case of *Personal habits*, *Job-high skill* and *Knowing an organic farm.* The relationship between leaving an e-mail and the *Job-high skill* is neither significant not strong in both models, despite of its positive sign. Both in OLS and Logit version two relationships became significant at 10%: *Gender* and *Organic-nonorganic-difference.* The *Test_question* indicates very strong positive correlation between being presented with idea of organic farming with additional social impact and leaving an e-mail. The associated p-value is 0,006, which is nearly on the borderline of significance at 5%. The outcome of leaving an e-mail is 3,73 times as likely as not leaving an e-mail, if a person was presented with the *Test_question.*

ORGANIC FARM KNOWLEDGE (R2)

Table 2: Regression 2, Organic Farm Knowledge

Dependent variable: **ORGANIC FARM KNOWLEDGE**	**OLS**			**LOGIT**					
Variables	Coefficients / Marginal effects	p-values	SE	Coefficients	p-values	SE	Marginal effect / at means	Average marginal effect	Odds ratio
(Constant)	0,29	0,14	0,20	-1,05	0,17	0,92			0,35
Gender	0,04	0,72	0,11	0,16	0,72	0,47	0,04	0,03	1,17
Age	0,00	0,77	0,01	-0,01	0,70	0,02	0,00	0,00	0,99
Residence_Cath	0,02	0,55	0,04	0,12	0,69	0,16	0,03	0,03	1,13
Job_high_skill	0,05	0,63	0,10	0,19	0,87	0,46	0,05	0,04	1,21
Personal_habits	0,16	0,00	0,05	0,91	0,10	0,25	0,22	0,19	2,49
Overall_environmental_attitude	-0,02	0,69	0,05	-0,13	0,47	0,23	-0,03	-0,03	0,88
Org_prod_purchasing_habits	0,03	0,54	0,05	0,14	0,13	0,59	0,03	0,03	1,15
Knowing_org_farms	0,27	0,06	0,15	1,31	0,25	0,62	0,31	0,28	3,71
Engagement_org_farm_act	0,45	0,05	0,23	omitted (predicts success perfectly)					

The total of 9 included predictors accounts for explanation of 18% of the variance in the dependent variable. In case of the Logit model, the pseudo- R^2 equals to 0,096. Besides *Age* and *Overall environmental attitude*, all of the explanatory variables are positively correlated with

answering correctly for the *Organic farm knowledge* question in the survey. OLS shows relatively strong positive influence of *Personal habits, Knowing an organic farm* and *Engagement in organic farming activities* on the dependent variable. The three variables are the only predictors that is significantly correlated with the dependent variable (at 5%, 10% and % respectively), both in OLS and Logit version. The negative influence of *Overall environmental attitude* is driven by the included in PCA variable *Support for population growth policies*. *Enjoyment of nature* and *Interventionist conservation policies* are positively correlated, as it is shown in the auxiliary regression in the Appendix C.

The logistic regression maintains the directions of correlations between response and explanatory variables. The marginal effects at means take the highest values for *Personal habits* and *Knowing an organic farm.* For a one unit increase in the *Personal habits* index an individual is 21% more likely to answer correctly for definition about organic farming. Respondents are 31% more likely to answer correctly, if they know an organic farm in the neighborhood, than when they do not know any organic farm in the neighborhood. In contrast to OLS model, the *Engagement in organic farming activities* was automatically dropped from the Logistic regression since it predicts success perfectly. In fact, 100% of the people, who were engaged in organic farming activities marked the correct definition of organic farming.

The percent of correctly predicted values equals 66,32%.

Additional findings

Departing from the logistic and linear regression, the treatment sub-sample (45 people), was briefly examined on whether the respondents' price elasticities change after receiving the treatment. The results are summarized in the table below. Only 13% of respondents would be willing to purchase such products at higher price than equivalent products from regular organic farm.

Table 3: Acceptable price difference: organic food vs non-organic food

	Acceptable price difference: organic food vs non-organic food				
Change in declared Acceptable price difference: Products from an organic farm with social impact vs Products from regular organic farm:	-20%	-10%	0%	+ 10%	+ 70%
Share of treated respondents	4%	11%	71%	11%	2%

In the treated sub-sample 11 people out of 13 who initially declared no willingness in subscribing for organic products delivery, updated their preferences positively after the treatment. Common characteristic of the group of people who changed their preference after treatment was lack of knowledge about organic farming and having low skilled job. In the remaining part of respondents – those who declared willingness to subscribe for organic food delivery from regular farm, only 2 changed their preference (negatively, for no interest in subscription) when asked about willingness to subscribe for organic products from the social impact farm. The two were both entrepreneurs with high income, which could be possibly tied with more skeptical approach regarding benevolence of the hiring disabled people idea.

DISCUSSION

Table 4: Summary of results

Main research question:	HYPOTHESIS	RESULT	REFERENCE
1) Does presence of CSA farm in in rural area help to raise environmental awareness among rural people in that specific area ?	**H1:** Knowing an organic farm in the neighborhood and engagement in organic farm activities are positively correlated with willingness to learn more about organic farming	Rejected at 10% significance	Leaving e-mail (R1)
	H2: Knowing an organic farm in the neighborhood and engagement in organic farm activities are positively correlated with higher level of education about organic farming.	Failed to reject at 10% significance	Organic farming knowledge (R2)
2) Can adding social impact to the CSA farm activity increase willingness to learn about organic farming in the neigborhood ?	**H3:** Social impact in a form of hiring mentally disabled people is positively correlated with an individual's willingness to learn more about organic farming .	Failed to reject at 10% significance	Leaving email (R1)

As shown on the attached summary of the findings, the estimation of the two regressions resulted in the rejection of 1 out of 3 stated hypotheses. Weak, negative the relation between

knowing an organic farm in the neighborhood and willingness to learn more about organic farming, is not considered statically significant at 10% level. In the same way, the positive influence of engagement in organic farm activity and willingness to learn more about organic farming cannot be considered statistically significant. These results lead to rejection of the hypothesis 1, and consequently to the conclusion, that discovered correlations should not be treated as a base for official policy recommendations. However, taking into account limitations of the study, it is possible that one could obtain significant results for the hypotheses H1, by correcting issues stated in section "Critics of the analysis". According to the findings from R2) logit and OLS models, higher level of knowledge about organic farming is significantly (at 10%) influenced by the knowing an organic farm in the neighborhood. The engagement in the organic farm activities is associated with 100% of successful prediction of capability to answer correctly on what the organic farming is. There is a lack of correlation with demographic factors, such as: age, place of residence and type of job, which impedes distinguishing a social profile of people who would be more likely to leave contact. There is however a positive correlation between leaving an e-mail and being a man, which may possibly be implying higher level of trust towards foreign interviewer.

Yet, there appeared in the analysis particularly strong and significant at 5%, positive relationship between leaving an e-mail and being presented with a description of CSA farming model that includes additional social impact in its activity. In fact, 60% of the people presented with the *Test_question* left the e-mail. The effect might mean that: a) people are more eager to learn about organic farming if they notice that it can be combined with the specified previously form of social impact, b) they may perceive an organic farming itself as more interesting after presentation, c) only presenting this kind of idea might result in aroused interest among the respondents. In the light of literature, that marks ignorance and lack of knowledge about ecological solutions, as main barriers to sustainable consumer behavior, this finding points out

that adding the social impact of this form, can help eliminating these barriers. From the marketing point of view, this is an important observation: joining ecological activity with social impact, can be a powerful tool for the formation of demand for ethical products. Most importantly however, the finding can be used as another argument for investing in solutions, that allow hiring people with intellectual disabilities. It is an encouraging message for the community of disabled people, which is usually underemployed, as well as for entrepreneurs who are hesitating to implement social impact in their businesses' operations.

Critics of the analysis

The research approach in this study has several flaws, resulting from the technical and time limitations of the data collection. The first issue is the small sample size, that affects negatively the statistical power of a study and results in i.a. high error terms. The second issue is the missing data may cause increased bias and wrongly inferred results. Despite existence of variety of tools used for data imputation, there is no better way to deal with its negative consequences, other than investing in further collection of data. The validity of data regarding finances (income, expenditures, purchasing decisions, etc.) could be questioned, due to the fact that the answers were self-reported. Finally, the geographical dispersion of the respondent's place of residence from the sample could be tied with certain uncontrolled cultural differences, that would weaken the model.

Points for further research

The research points out interesting directions for further studies. From the CRS point of view, it would be interesting to examine impact of adding social impact to the organic farm on consumers price elasticities and brand loyalty. There could be made a comparison of consumer purchasing choices between organic farms and organic farms with social impact farm. To test whether one is preferred than the other one should have a third alternative, in which the farm does not produce organic food but hires disabled workers. One could examine, whether the

consumer hypothetical support for a farm that has additional social impact, translates on reduced price sensitivity for the firm's products or rather on the increased brand loyalty. The consumers could be willing to substitute the usual way of grocery-shopping or deliveries from regular ecological farm for the deliveries from social-impact farm, but without switching the costs. If it was possible to reach actual clients of Chinese CSA farms, the consumer behavior could be studied more in-depth regarding profiles of consumers and their perception on products quality performance, as a function of nature of firms CSR behavior. Another interesting direction, would be examining the difference in consumer behavior regarding farm that would support disabled people by donations and farm that would support them by employing them (which is incorporating CSR in core operations of the company).

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APPENDIX

Appendix A: Factor analysis

The appendix A includes: Rotated Component Matrix, KMO and Bartlett's Test, and Correlation Matrix.

	Rotated Component Matrix	Component			
		1	2	3	4
PCA 1	Pollution_awareness	.782			
	Personal_conservation_behaviour	.757			
	Environmental_movement_activism	.683			
	Enjoyment_of_nature		.680		
	Interventionist_conservation_policies		.670		
	Population_growth_policies		.533		
PCA 2	Frequency_right	.879			
	Purchasing_org_products	.878			
	Monthly_expend_org_products	.611			
	R_healthy_content		.717		
	R_taste_quality		.666		
	R_availability		.639		-.392
	R_pollution_concern		.635		
	R_no_reasons			.844	
	Prefer_supermarket_food			.688	.413
	Own_veggie_garden_no_need_for_orgfood				.775
	Organic-nonorganic-difference	.345			-.408

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 4 iterations.

KMO and Bartlett's Test		PCA 1 Attitudes	PCA 2 Reasons for buying organic food & Budgeting decisions
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,611	0,514
Bartlett's Test of Sphericity	Approx. Chi-Square	44,993477	210,119456
	df	15	55
	Sig.	0	0

Correlation Matrix PCA 1

	Personal conservation behaviour	Pollution awareness	Environmental movement activism	Enjoyment of nature	Interventionist conservation policies	Population growth policies
Personal conservation behaviour	1.000	.410	.286	-.087	.133	.040
Pollution awareness	.410	1.000	.344	-.215	-.001	-.052
Environmental movement activism	.286	.344	1.000	-.040	.060	.046
Enjoyment of nature	-.087	-.215	-.040	1.000	.159	.100
Interventionist conservation policies	.133	-.001	.060	.159	1.000	.076
Population growth policies	.040	-.052	.046	.100	.076	1.000

Correlation Matrix PCA 2

	Reason: taste & quality	Reason: healthy content	Reason: pollution concern	Reason: availability	Reason: no reasons	Organic-nonorganic-difference	Purchasing organic products	Frequency of purchasing organic products	Monthly expenditure on organic products	Preference for "supermarket food"	Owning veggie garden: no need for organic food purchases
Reason: taste & quality	1.000	.404	.072	.292	.147	-.148	-.065	-.036	.045	.093	-.054
Reason: healthy content	.404	1.000	.368	.120	-.181	-.058	.052	.044	.116	.071	.113
Reason: pollution concern	.072	.368	1.000	.332	-.019	-.090	-.149	.049	.014	.148	.122
Reason: availability	.292	.120	.332	1.000	.192	-.092	-.244	-.081	-.051	-.086	-.109
Reason: no reasons	.147	-.181	-.019	.192	1.000	-.035	-.082	-.071	-.077	.250	-.031
Organic-nonorganic-difference	-.148	-.058	-.090	-.092	-.035	1.000	.230	.211	.061	-.051	-.172
Purchasing organic products	-.065	.052	-.149	-.244	-.082	.230	1.000	.758	.320	-.027	-.008
Frequency of purchasing organic products	-.036	.044	.049	-.081	-.071	.211	.758	1.000	.375	-.060	.010
Monthly expenditure on organic products	.045	.116	.014	-.051	-.077	.061	.320	.375	1.000	.019	.046
Preference for "supermarket food"	.093	.071	.148	-.086	.250	-.051	-.027	-.060	.019	1.000	.096
Owning veggie garden: no need for organic food purchases	-.054	.113	.122	-.109	-.031	-.172	-.008	.010	.046	.096	1.000

Appendix B: Data screening

The appendix B includes: Test of Homogeneity of Variances, One-way ANOVA test for comparison of means and Summary of robust analysis for raw data (with missing values)

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Gender	3.491	1	100	.065
Age	.405	1	100	.526
Residence_Cat	2.814	1	100	.097
Job_high_skill	.028	1	100	.867
Organic-nonorganic-difference	.610	1	100	.437
Personal habits	2.777	1	100	.099
Overall environmental attitude	.139	1	100	.710
Org_farm_knowledge	3.491	1	100	.065
Knowing_org_farms	.432	1	100	.513
Engagement_org_farm_act	1.204	1	100	.275
LEAVING_EMAIL	.949	1	100	.332

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Gender	Between Groups	.432	1	.432	1.738	.190
	Within Groups	24.823	100	.248		
	Total	25.255	101			
Age	Between Groups	35.772	1	35.772	.338	.562
	Within Groups	10579.991	100	105.800		
	Total	10615.763	101			
Residence_Cat	Between Groups	.694	1	.694	.241	.624
	Within Groups	287.385	100	2.874		
	Total	288.078	101			
Job_high_skill	Between Groups	.002	1	.002	.007	.933
	Within Groups	24.087	100	.241		
	Total	24.088	101			
Organic-nonorganic-difference	Between Groups	.035	1	.035	.187	.666
	Within Groups	18.788	100	.188		
	Total	18.824	101			
Personal habits	Between Groups	.379	1	.379	.376	.541
	Within Groups	100.621	100	1.006		
	Total	101.000	101			
Overall environmental attitude	Between Groups	.004	1	.004	.004	.949
	Within Groups	100.996	100	1.010		
	Total	101.000	101			
Org_farm_knowledge	Between Groups	.432	1	.432	1.738	.190
	Within Groups	24.823	100	.248		
	Total	25.255	101			
Knowing_org_farms	Between Groups	.023	1	.023	.110	.741
	Within Groups	21.153	100	.212		
	Total	21.176	101			
Engagement_org_farm_act	Between Groups	.017	1	.017	.296	.588
	Within Groups	5.630	100	.056		
	Total	5.647	101			
LEAVING_EMAIL	Between Groups	1.561	1	1.561	6.562	.012
	Within Groups	23.782	100	.238		
	Total	25.343	101			

Summary of robust analysis: raw data						
	Issue:	**Test**	R1) LEAVING EMAIL:		R2) ORGANIC FARM KNOWLEDGE:	
			p-values:	Interpretation:	p-values:	Interpretation:
OLS	Outliers:	Centered Leveraged Values	-	6 outliers detected, according to the Hoaglin & Welsch rule	-	5 outliers detected, according to the Hoaglin & Welsch rule
	Heteroskedasticity:	Breusch-Pagan	0,99	fail to reject the null hypotheses of constant variance and homoskedasticity (White at 5% significance level).	0,808	fail to reject the null hypotheses of constant variance and homoskedasticity.
		White	0,09		0,257	
	Multicollinearity:	VIF	-	the highest VIF is 1,85, which is acceptable	-	the highest VIF is 2,00 which is acceptable on the border line
Logit	Goodness of fit	Hosmer and Lemeshow	0,55	the model is correctly specified	0,22	the model is correctly specified

Appendix C: Regression Analysis

The Appendix C includes Preliminary regression on *Organic farming knowledge*

Preliminary regression - organic farm knowledge							
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-0,462	0,674		-0,69	0,5	-1,801	0,877
Gender	0,021	0,109	0,021	0,2	0,8	-0,195	0,237
Age	0	0,005	0,007	0,07	0,9	-0,01	0,01
Residence_Cath	0,016	0,038	0,055	0,43	0,7	-0,059	0,092
Job_high_skill	0,049	0,105	0,047	0,46	0,6	-0,16	0,257
Knowing_org_farms	0,208	0,149	0,19	1,4	0,2	-0,088	0,503
Engagement_org_farm_act	0,464	0,235	0,219	1,97	0,1	-0,003	0,931
Enjoyment_of_nature	-0,033	0,123	-0,028	-0,26	0,8	-0,278	0,213
Interventionist_conservation_policies	0,091	0,119	0,081	0,76	0,5	-0,147	0,328
Population_growth_policies	-0,059	0,085	-0,071	-0,69	0,5	-0,228	0,111
Personal_conservation_behaviour	0,024	0,174	0,016	0,14	0,9	-0,322	0,37
Pollution_awareness	0,205	0,139	0,171	1,47	0,1	-0,072	0,482
Environmental_movement_activism	0,032	0,104	0,034	0,31	0,8	-0,174	0,239

Appendix D: Questionnaire outline

Appendix D includes the outline of the questionnaire is presented in both English and Chinese version.

Good morning / afternoon, my name is Zofia Senatorska.

I am student of Economics on Nova School of Business and Economics, in Lisbon, Portugal. Currently I am doing my master thesis, which is a study about environmental attitudes and approach to organic food among people. To proceed with my research (and to finish my degree), I need to interview people with the following set of questions. **The questionnaire is fully anonymous and confidential**. Would you help me ?

PART 1 – Sample characteristics

1. Gender: a) male, b) female
2. Age : ….
3. Education :
   a) primary, b) medium school, c) highschool, d) junior school, d) university e) other: …
4. City :
   a) Current place of living : ……
   b) Birth place : ……
5. Family :
   a) Household members (number) : …..
   b) Marital status : a) married, b) single)
   c) Number of kids : …..
6. Income :
   a) Average income per month :
      - 0 – 1 700 RMB
      - 1700 – 3 700
      - 3 700 – 5 000
      - 5 000 – 7 000
      - 7 000 – 10 000
      - 10 000 – 14 000
      - 14 000 – 18 000
      - > 18 000

   b) Average expenditures for households per month :
      - 0 – 600
      - 600 – 1000
      - 1000 – 2000
      - 2000 – 3 000
      - 4 000 – 5 000
      - > 5 000
7. Type of job:
   a) Farmer
   b) Other : ….

8. Religion: a) Taoist, b) Buddhist, c) Christian, d) Muslim, e) No belief, f) other

PART 2 – Knowledge about organic farming

1) Can you tell me what organic farming is ? Please mark the definition that matches your opinion :
   a. It is method of farming that excludes use of pesticides and antibiotics, but allows synthetic based fertilizers.
   b. It is a way of growing plants and breeding animals without using any type of chemicals: pesticides and antibiotics, synthetic based fertilizers.
   c. It is a way of cultivating plants (not animals) without using chemicals and without crop rotation.

Organic farming is a method of cultivation of plants and animal breeding, **without using any chemicals**. It is not allowed to use synthetic based fertilizers, pesticides, antibiotics.
It relies on principles like crop rotation, green manure, organic waste, biological pest control, mineral and rock additives. Organic farming make use of pesticides and fertilizers if they are considered natural.

The goal of organic farming is to produce food in the most healthy way, avoiding problems appearing with conventional farming, such as: degradation of soil and water, pollution, health problems.

9. Do you know any organic farm close by ? :
- **a)** Yes, …….. (please mention name of the farm)
- **b)** No.

10. Are you engaged specifically in any organic farm activities ?
- **a)** Yes:
  - ○ Which ones ? : ……..
  - ○ Since when are you engaged ? : ……..
  - ○ Why are you engaged ?:
    - because that is the best job opportunity for me,
    - influence of people who are close to me,
    - need of doing something good socially,
    - other : ……..
- **b)** No.

PART 3 – Overall environmental attitude

Please, mark the degree to which you agree with the following sentences:

	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1) Sometimes when I am unhappy, I find comfort in nature (in the forest, in mountains, on a walk in a park)					
2) Being out in nature is a great stress reducer for me					
3) I would rather spend my weekend in the city than in wilderness areas.					
4) I think spending time in nature is boring.					
5) Industry should be obliged use recycled materials, even if they cost more than new raw materials.					
6) Industry should be free to decide whether to use raw or recycled materials, if it leads to lower prices of products.					

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7) Governments should control the rate at which raw materials are used to ensure that they last as long as possible.					
8) Controls should be placed on industry to protect the environment from pollution, even if it means that products will be more expensive.					
9) I oppose any removal of nature areas no matter how economically beneficial their development may be.					
10) The idea that we should control the population growth is wrong.					
11) The world population should be smaller, continuous growth is bad for environment and quality of life.					

PART 4 – Personal habits

Please, mark the degree to which you agree with the following sentences:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1) In my daily life I try to find ways to save water or power.					
2) I always switch the light off when I don't need it on anymore.					
3) Even if public transportation was more efficient than it is, I would prefer to drive my car.					
4) If public transportation was more efficient than it is, I would use it instead of my car.					
5) I do not think that if I stopped driving my car it would make a difference regarding pollution problem.					
6) I believe there is a struggle with pollution in my city.					
7) I do not think that pollution from big city affects my town.					
8) I segregate trash at my home.					
9) I prefer to use material bag than a plastic bag.					

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
10) I believe that main source of pollution is industry and not people's behavior, so I do NOT try to be environmental-friendly in my daily life.					
11) I believe that main source of pollution is industry and not people's behavior, but I DO try to be environmental-friendly anyway it in my daily life.					
12) If I ever get extra income I will donate some money to an organization with social impact.					
13) If I ever get extra income I would donate some money to issues more important than an environmental organization.					
14) If I ever get extra income I would NOT donate any money, I would rather focus on my family and personal development.					

PART 5 – Reasons for buying organic food

1) How important for you are the following reasons to buy organic food/products ?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1) Taste and quality					
2) Healthy content					
3) Pollution concern – environmental friendly technology					
4) Availability					
5) There are no reasons					

2) How big difference in quality/taste do you feel between organic products and non-organic products? Please, mark your answer.

organic products are less enjoyable	no difference	preferred organic products

PART 6 – Budgeting decisions

1) Do you buy organic products ?
   a) Yes, b) No, (if no, go to 5)
2) How often do you buy organic products?
   a. Once a week, b) Once a month, c) A few times a year, d) Once a year, e) Never
3) Which organic products do buy usually?
   a. Vegetables, b) Fruits, c) Cosmetics, d) Others
4) How much do you spend on organic products per month?: ……..

5) Would you buy organic food if it was:

   a) 5%, b) 10%, c) 20%, d) 30%, e) 40%, f) 50%, g) 70%, h) 100%

   more expensive than equivalent non-organic food?
   Please, mark the maximum value, you would consider as acceptable.

6) If you had an extra income would you decide on buying organic food / products ?
   a. Yes, b) No
7) Would you be willing to subscribe for weekly delivery of organic food ?
   a. Yes, b) No
8) I prefer food from a shop / supermarket than from a street / usual market
   a. Yes, b) No
9) I grow vegetables and fruits on my own, I do not need organic food.

Imagine that in your neighbourhood there is an organic farm, which helps disabled people. The disabled people work on that farm under supervision of professional workers and produce healthy organic food. The possibility of working there helps them develop mentally and physically.

10) Would you be more willing to buy food from a farm that has this kind of a social impact ?
    a. Yes, b) No
11) Would you be willing to subscribe for a weekly delivery of an organic food made in this kind of organic farm ?
    a. Yes, b) No
12) Would you buy from this farm if it was:

    b) 5%, b) 10%, c) 20%, d) 30%, e) 40%, f) 50%, g) 70%, h) 100%

    more expensive than equivalent non-organic food?

    Please, mark the maximum value, you would consider as acceptable.

If you would like to be contacted and learn more about organic farming in your area, we invite you to leave an e-mail (WeChat) below:

您好，我的名字叫 Zofia Senatorska（佐菲 • 亚森纳斯卡），是来自 Economics on Nova School of Business and Economics（葡萄牙新里斯本大学）商学院经济学系的学生。

现在我正在做我的硕士毕业论文，是关于对于环境态度和有机食品的研究，并以此完成学位。我需要做以下问题调查（此为匿名问卷且完全保密），请问您能帮助我填写吗？

非常感谢您的帮助。

NOVA School of Business & Economics — Shaping powerful minds

第 1 部分：基本信息 / PART 1 – Sample characteristics

1. 性别: a) 男, b) 女
2. 年龄 : _____
3. 文化水平 :
   a) 小学, b) 初中, c) 高中, d) 专科, e) 本科, f) 硕士, g) 博士
4. 城市 :
   a) 现居地 : _____
   b) 出生地 : _____
5. 家庭情况 :
   a) 家庭人口数量 : _____
   b) 婚姻状况 : a) 已婚, b) 单身
   c) 儿童数量 : _____
6. 家庭收支情况 :
   a) 月收入 :
   - ○ 0 – 1 700 RMB
   - ○ 1700 – 3 700
   - ○ 3 700 – 5 000
   - ○ 5 000 – 7 000
   - ○ 7 000 – 10 000
   - ○ 10 000 – 14 000
   - ○ 14 000 – 18 000
   - ○ > 18 000

   b) 家庭月支出 :
   - ○ 0 – 600
   - ○ 600 – 1000
   - ○ 1000 – 2000
   - ○ 2000 – 3 000
   - ○ 4 000 – 5 000
   - ○ > 5 000
7. 工作类型 :
   a) 农业生产者
   b) 其他 : _____

8. 宗教: a) 无神论者, b) 佛教, c) 道教, d) 基督教, e) 穆斯林, f) 其他

第 2 部分：有机农业知识 / PART 2 – Knowledge about organic farming

1) 您能告诉我什么是有机农业吗？请选出符合您个人意见的定义：
   a. 有机农业是一种不使用杀虫剂和抗生素的耕作方法，但允许使用合成基肥料。
   b. 有机农业是一种培育植物和饲养动物的方法，且不使用任何类型的化学物质，至少包括：杀虫剂、抗生素、合成基肥料。
   c. 有机农业是一种不使用化学物质和不进行农作物轮栽的培育方法（不包括饲养动物）。

有机农业是指在不使用任何化学物质的情况下培养动植物的一种方法，不允许使用合成基肥料、杀虫剂、抗生素等。其依靠农作物轮作、绿肥、有机废料、生物害虫控制、天然矿物和岩石，即使使用农药和化肥，也须是纯天然的。

有机农业的目标是以最健康的方式生产食物，避免传统农业出现的问题，如：土壤和水的退化、污染、健康问题等。

9. 您知道附近有什么有机农场吗？

a) 知道, _____ (地点或名称)

b) 不知道.

10. 您现在从事与有机农场相关的工作吗？

a) 是:

- 工作内容？ _____
- 工作时长？ _____
- 为什么从事有机农场活动？
  - 因为这是我最好的工作机会，
  - 为了影响他人[如配偶，
  - 伴侣等] /为了回报社会，
  - 其他：_____

b) 不是.

第 3 部分-总体环境态度 / PART 3 – Overall environmental attitude

请您选择对于下列句子的认同度：（在下面勾画✓即可）

	强烈不同意	**不同意**	**中性**	**同意**	**强烈同意**
1) 当我不开心的时候，在大自然中找我会感到宽慰。(如：公园、山林)。					
2) 我能在大自然中释放压力					
3) 在周末，我宁愿在城市中度过，也不愿亲近和享受自然。					
4) 我认为花在大自然上的时间很无聊。					
5) 工厂有义务回收清洁旧材料，并再次使用，即使其成本更贵。					
6) 工厂应有权决定使用原材料还是回收材料，即使原材料价格更低。					

	强烈不同意	同意	中性	不同意	强烈同意
7) 各国政府应控制原材料的使用速度，以确保其可持续发展。					
8) 应对工业实施控制，以保护环境免受污染，即使这意味着产品将更加昂贵。					
9) 即使其会对经济发展带来好处，我仍反对开发新的自然环境。					
10) 我认为我们应该控制世界人口增长的想法是错误的。					
11) 世界人口应该减少，因为持续的人口增长会影响生活环境和生活质量。					

第四部分—个人爱好 / PART 4 – Personal habits

请您选择对于下列句子的认同度：（在下面勾画✓即可）

	强烈同意	同意	中性	不同意	强烈不同意
1) 在我的日常生活中，我会想办法去节约水电。					
2) 当我不使用灯的时候，我总会关掉它。					
3) 即使公共交通比现在更有效率，我仍然更愿意开自己的车。					
4) 如果公共交通比现在更有效率，我会选择公共交通而不是自己开车。					
5) 我不同意如果我不开车，环境就会有所改善。					
6) 我认为我的城市正在经历环境污染问题。					
7) 我认为大城市的环境污染不会对我所在的城镇有影响。					
8) 我会在家里给垃圾分类。					
9) 我更喜欢使用布织袋而不是塑料袋。					

	强烈同意	同意	中性	不同意	强烈不同意
10) 我认为污染主要是工业造成的，而不是人们的行为后果，所以我不必注意自己的行为。					
11) 我认为污染主要是工业造成的，而不是人们的行为后果，但在日常生活中我仍会尽量做到环保。					
12) 如果我有额外收入，我会捐一部分给具有社会影响力的环保组织。					
13) 如果我有额外收入，我会捐一部分给比解决环境问题还要严重的其他问题的环保组织。					
14) 如果我有额外收入，我不会捐钱，我宁愿把重点放在我的家庭和个人发展上。					

第 5 部分-购买有机食品的理由 / PART 5 – Reasons for buying organic food

1) 您对购买有机食品/产品的原因有哪些？

	强烈同意	同意	中性	不同意	强烈不同意
1) 口味和品质					
2) 健康因素					
3) 关注污染—环境友好技术					
4) 可获得性					
5) 没有原因					

2) 有机产品和非有机产品之间的质量/品味有多大的差异？请选择：

不太喜欢有机产品	没有差异	优选有机产品
a)	b)	c)

第 6 部分-预算决策 / PART 6 – Budgeting decisions

1) 您是否曾购买有机产品？

   a）是 b）不是（如果不是，请转到 5 题）

2) 您多久购买一次有机产品？

   a) 一周一次, b) 一个月一次, c) 一年几次, d) 一年一次, e) 从不

3) 通常购买哪种有机产品？

   a) 蔬菜, b) 水果, c) 化妆品, d) 其他

4) 您每个月在有机产品上花费了多少钱 （大概费用即可）？ _____

5) 您会购买有机食品吗？如果它按照：

   a) 5%, b) 10%, c) 20%, d) 30%, e) 40%, f) 50%, g) 70%, h) 100% 的比例，比同等的非有机食品贵呢？ 请选择您能接受的最大程度。

6) 如果您有额外的收入，您会决定购买有机食品/产品吗?

   a) 是, b) 不是

7) 您愿意购买每周递送的有机食品吗？

   a) 是, b) 不是

8) 我更喜欢商店/超市的食物而不是街边的普通市场？

   a) 是, b) 不是

9) 我是自己种植蔬菜和水果，不需要购买有机食物？

   a) 是, b) 不是

如果您想联系您所在地区的有机农业，请在此处写下您的电子邮箱：_____